Claims

1. SS7 signaling server for routing SS7 links, including a signaling transfer point (STP) and a signaling application server (SAS),

   wherein the STP has at least one external interface to connect the STP via at least one SS7 link to at least one telecommunications unit, and an internal interface to connect the STP to the SAS,

   wherein the SAS is capable to process at least one application service request, and

   wherein the STP is capable to process incoming SS7 messages, to identify a single application service request in one incoming SS7 message, to provide the identified single application service request to the SAS for further processing.

2. The SS7 signaling server, as set forth in claim 1, wherein the STP is capable

to receive a processed service request from the SAS, to include the processed service request into an outgoing SS7 message, and to transmit the outgoing message over an SS7 link.

3. The SS7 signaling server, as set forth in claim 1, wherein at least one telecommunications unit is a mobile switching center (MSC).

4. Method for routing SS7 links, comprising the steps of:

identifying in a signaling transfer point (STP) a single application service request in an incoming SS7 message,

providing the identified single application service request to a signaling application server (SAS), which is capable of processing at least one application service, and

processing the provided service request in the SAS.

5. The method, as set forth in claim 4, further comprising the steps of:

providing the processed service request to the STP,

including the processed service request into an outgoing SS7 message,

and transmitting the outgoing message over an SS7 link.

6. The method, as set forth in claim 4, further comprising the steps of:

identifying in the STP the single application service request out of a signaling connection control part (SCCP),

identifying in the SAS an individual INAP, MAP, CAP, or any TCAP User, TCAP Relay, or SCCP Relay service request out of the provided service request according to an internal application service id, and

distributing in the SAS the identified INAP, MAP, CAP, or any TCAP User, TCAP Relay, or SCCP Relay service request to a corresponding service library.

7. Signaling transfer point (STP) for routing SS7 links comprising at least one processor and at least one processing software to process incoming SS7 messages, to identify a single application service request in the incoming SS7 message, and to provide the identified single application service request to a signaling application server (SAS) for further processing.

8. Signaling transfer point (STP), as set forth in claim 7, wherein the at least one processing software includes an escape local user process to identify a single application service request out of a signaling connection control part (SCCP).

9. Signaling transfer point (STP), as set forth in claim 8, wherein the escape local user process is capable to receive processed single application service requests and to include the processed single application service requests into SCCPs, and wherein the at least one processing software is capable to build up SS7 messages including the processed single application service requests and to transmit these SS7 messages over SS7 links.

10. Signaling application server (SAS), comprising at least one processor and at least one processing software for processing at least one application service request, wherein the at least one processing software includes a signaling connection control part (SCCP) process and at least one transaction capabilities application part (TCAP) process to identify at least one application service request.

11. Signaling application server (SAS), as set forth in claim 10, wherein one TCAP process is capable to identify intelligent network application protocol (INAP) subsystem numbers (SSN) and another TCAP process is capable to process mobile application part (MAP) subsystem numbers (SSN).

12. Signaling application server (SAS), as set forth in claim 11, wherein an INAP service distributor process is provided to identify an individual INAP service request according to a service key and to distribute the identified INAP service request to a corresponding INAP service library, and wherein an MAP service distributor process is provided to identify an individual MAP service request and to distribute the identified MAP service request to a corresponding MAP service library.

13. Signaling application server (SAS), as set forth in claim 10, wherein a SCCP relay process is provided, and wherein a SCCP relay distributor process is provided to identify an individual SCCP relay request and to distribute the identified SCCP relay request to a corresponding SCCP relay library.

14. Processing software for a signaling application server (SAS) to process at least one application service request, wherein the processing software includes a signaling-connection control part (SCCP) process and at least one transaction capabilities application part (TCAP) processes to identify at least one application service request.